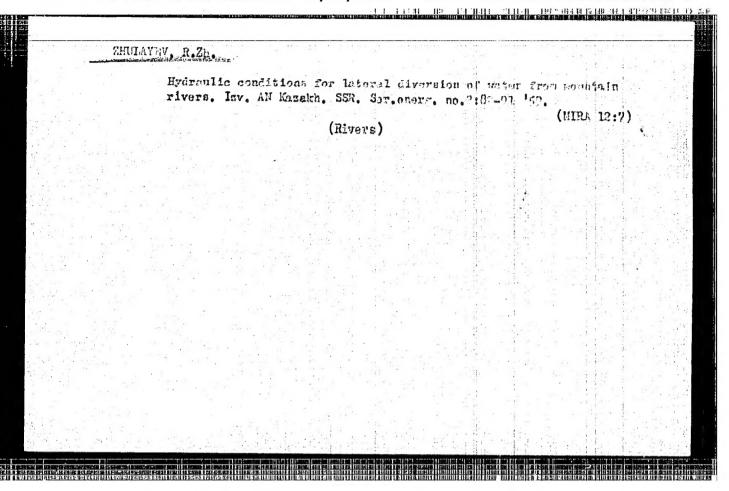
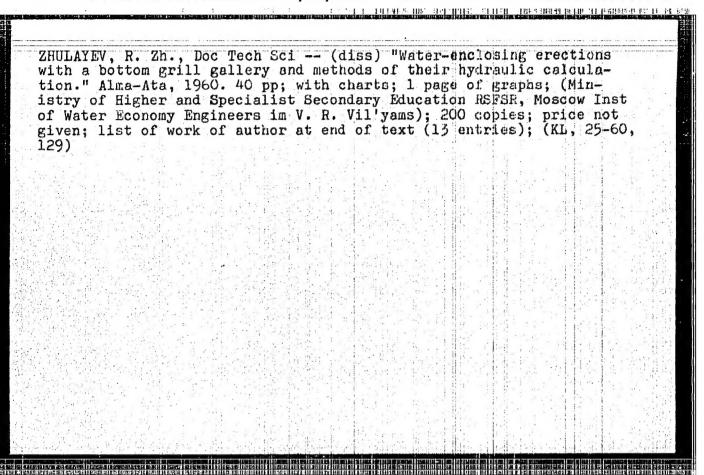
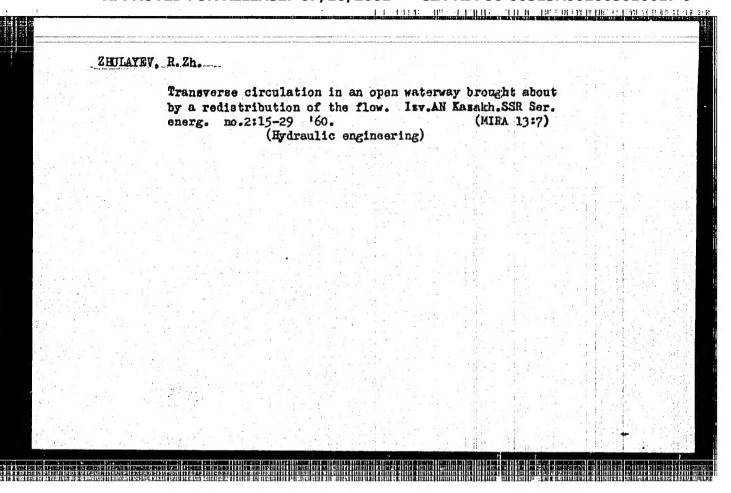
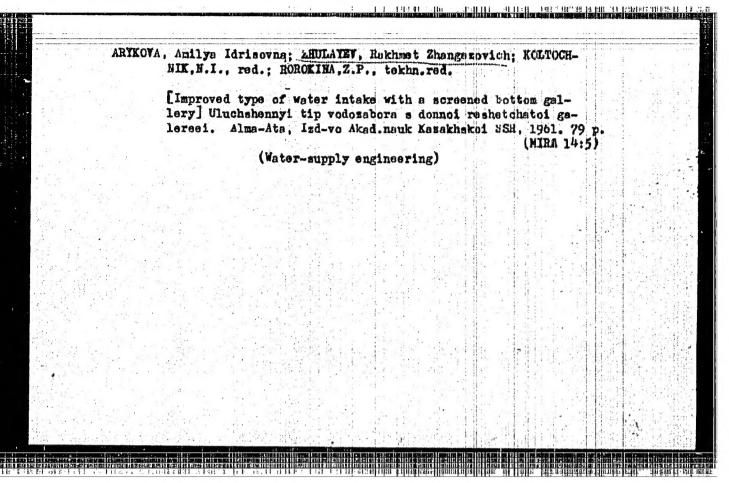
"Survey of the Work of the Energetics Institute of the Kazakh SSR on Hydrodynamics," in book Conference on Applications of Gas Dynamics, "TRUD" Series, Publishing Office of the Academy of Science of the Mazakh SSR, Alma-Ata, 1959.

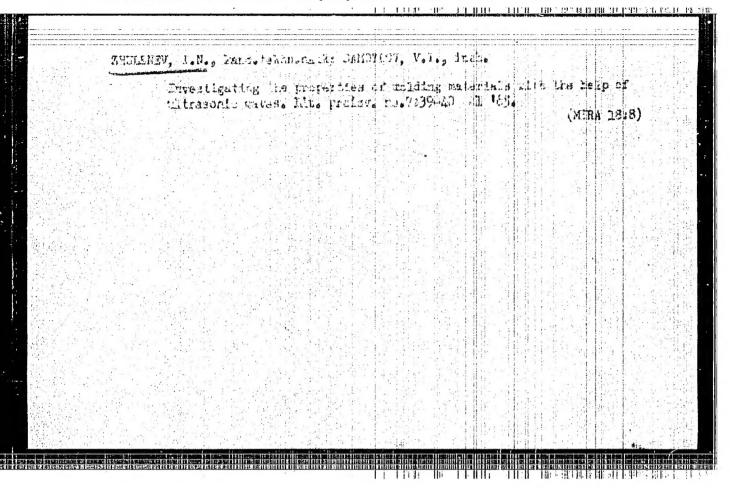
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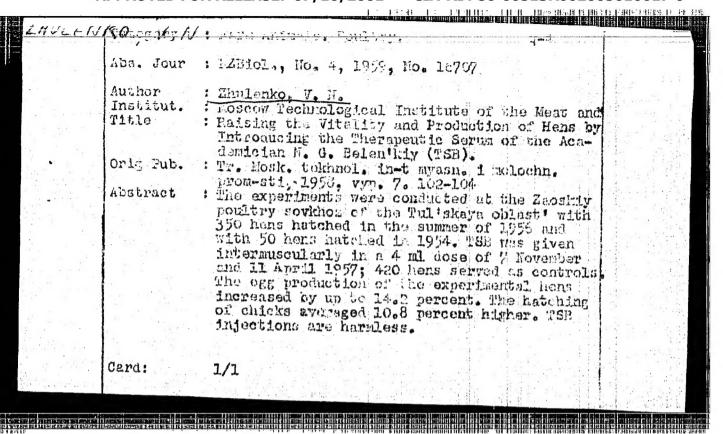












Ditilin for relaxing the musculature of swine. Veterinariia 39 no.1:62 Ja '62. (NIRA 15:2) 1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti. (Ditilin) (Avine)	K		dotsent; ZHULEN	the last the same of the same	4.1		
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	GOVOROV, N.P.	; SENYUSHKIN,	A.F.; ZHULENKO	V.N.		
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Z MULEARU, V N. USSR/Medicine - Physiology

Card 1/1

Pub 33-17-24

Author

Govorov, N. P.; Senyushkin, A. F.; Zhulenko, V. N.

Title

THE RESIDENCE OF THE PARTY OF T On the question of intestinal secretion in dogs

Periodical: Fiziol. zhur. 2, 273-278, Mar-Apr 1955

Abstract

The juice secretion of the isolated intestinal loop of dogs is increased after feeding (250 gm bread and 100-200 gm meat broth). Tables; graphs. Eighteen references, all USSR (8 since 1940).

Institution: Chair of Pharmacology of the Omsk Veterinary Institute

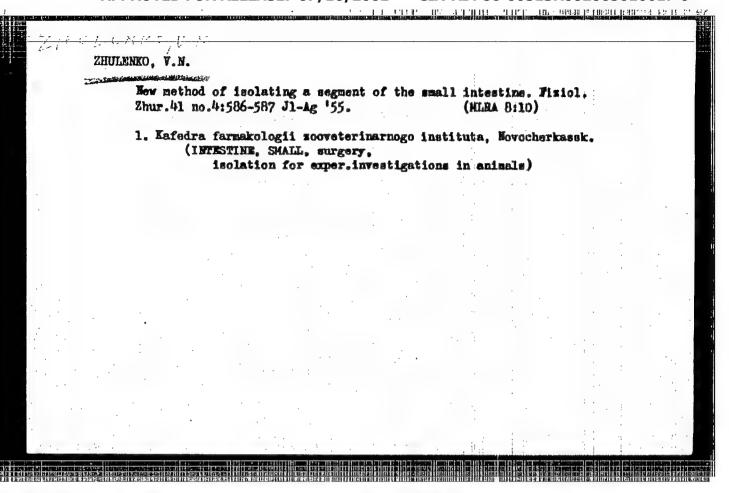
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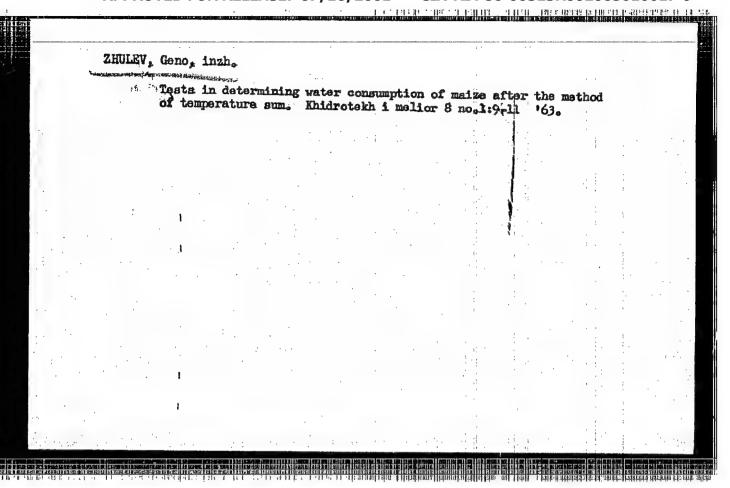
October 19, 1953

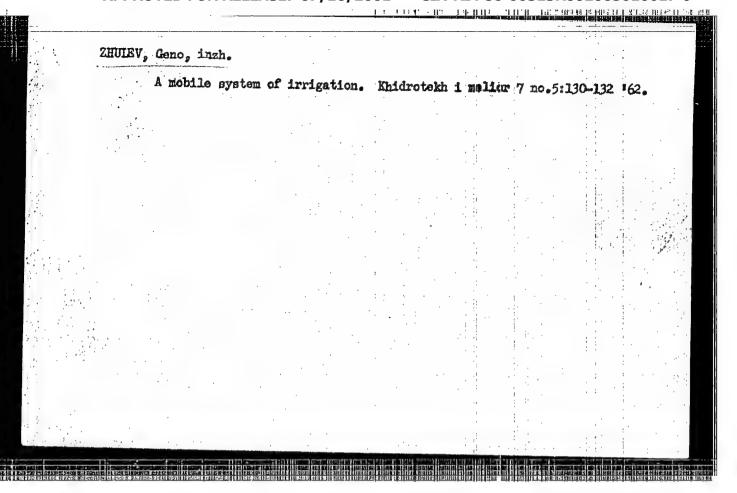
ZHULENKO, V.N., KORNEYEV, N.E., (Assistant Professors, Moscow Technological Institute of Meat and Milk Industry)

"Ditiline for weakening the musculature in swine."

Veterinariya, Vol 39, no 1, Jan 1962. pp 60





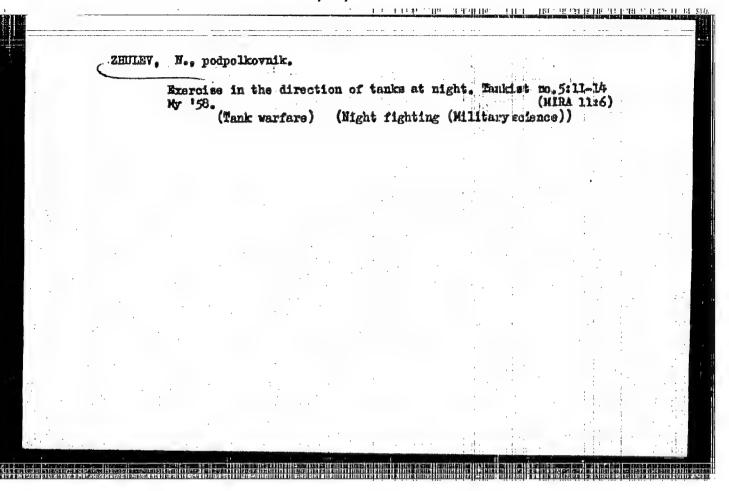


"Construction of Small Dams on Collective Farms", P. 30, (ECCPERATIVE)

ZEMEDELIE, Vol. 9, No. 7, 1954, Seriya, Bulgaria)

SO: Monthly List of East European Accessions, (ERAL), IG, Vol. 4, No. 1,

Jan. 1955, Uncl.



ZHULEY, Stoisn, Il., inzh.; TOPALOY, Kirll Al., inzh.

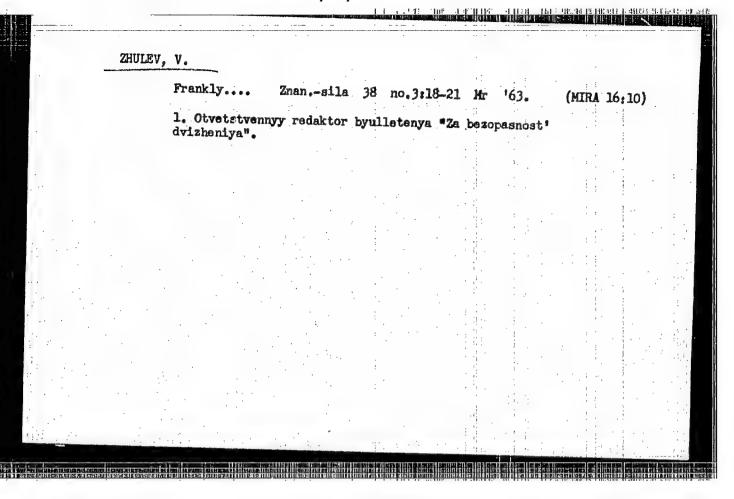
Some technical problems in continuous piece dyeing.
Tekstilna prom 14 no.l: 40-41 '65.

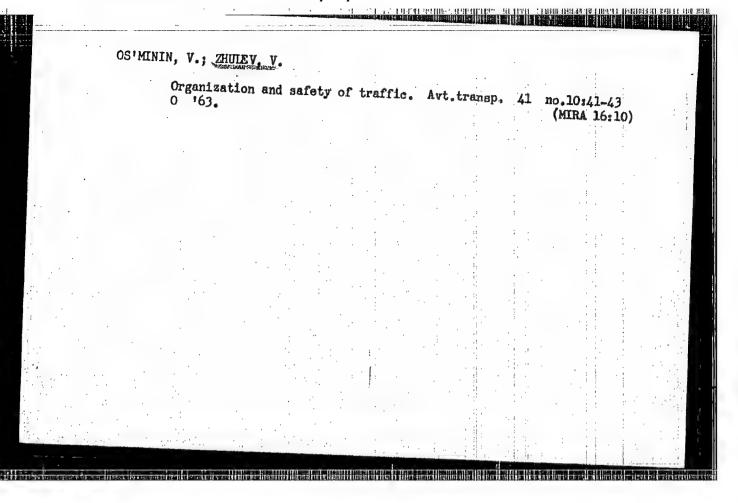
1. Chief Engineer. "Osmi mart" State Industrial Enterprise,
Sofia (for Zhulay). 2. Chief Specialist, Commission for
Light Industry, Sofia (for Topaloy).

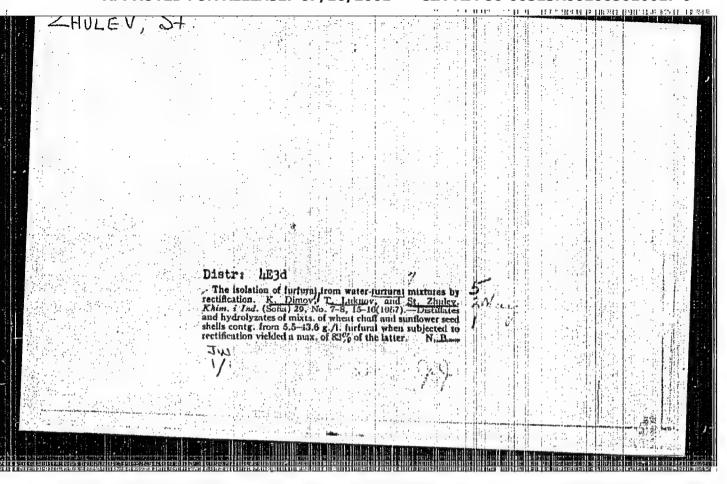
ZHULEV, Stoian, insh.

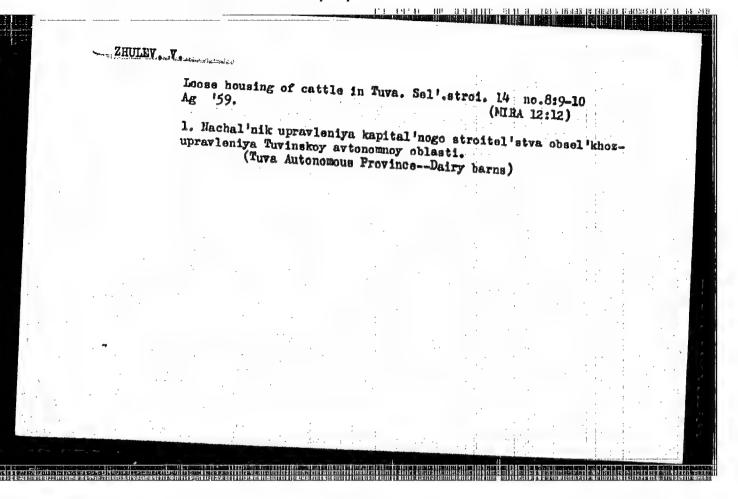
The "8 mart" State Industrial Enterprise, Sofia, is growing as a modern cotton-processing mill. Tekstilna prom 13 no. 4:30-32

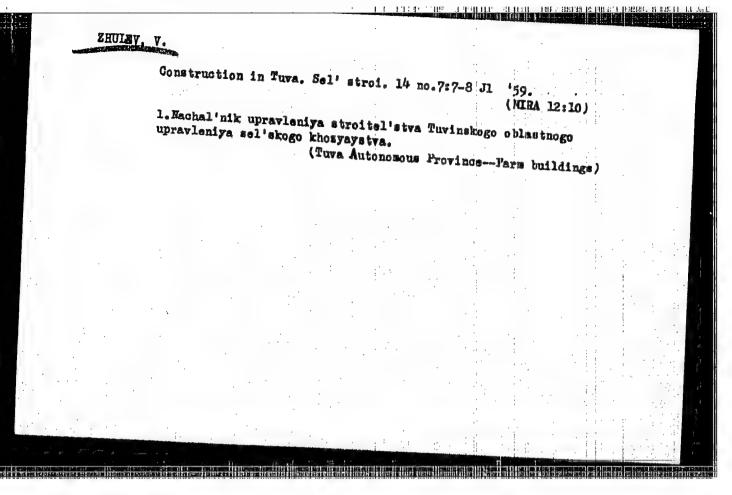
1. Chief Engineer, "8 mart" State Industrial Enterprise, Sofia.

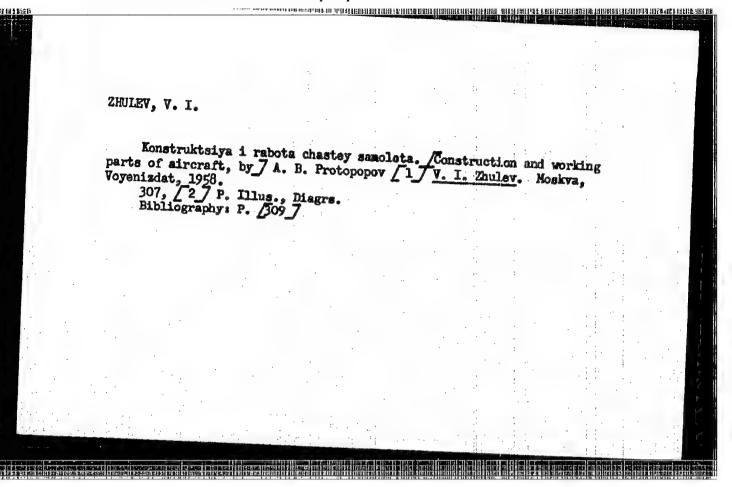












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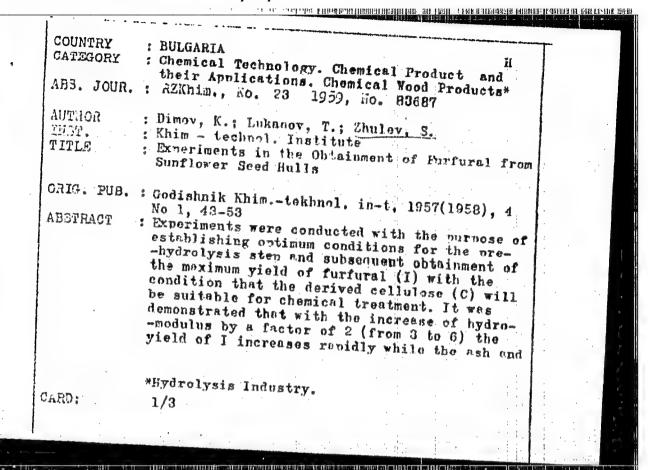
D.M., inzh.-polkovnik, red.; ANIKIMA, R.F., tekin.red.

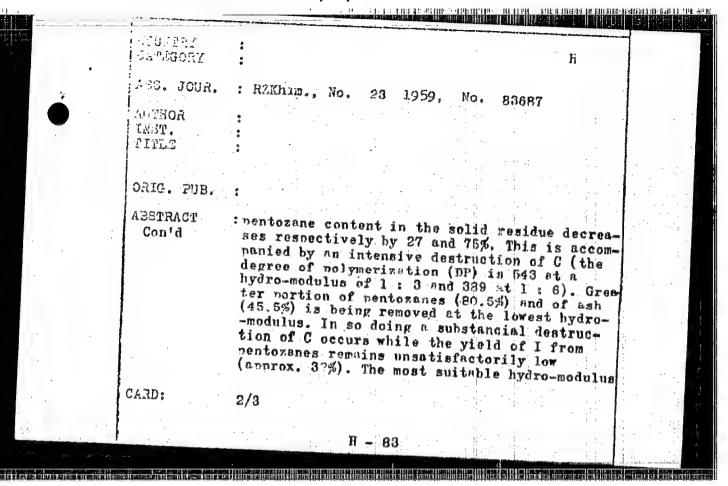
[Design and performance of airplane perts] Konstruktsiia 1
rabote chastel samolets. Moskva, Voen. isd-vo M-ra obor. SSSR,

1958. 307 p.

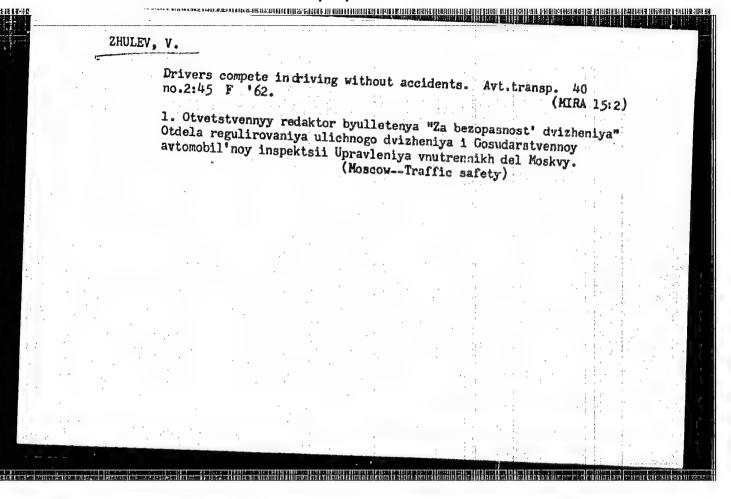
(Airplanes--Design and construction)

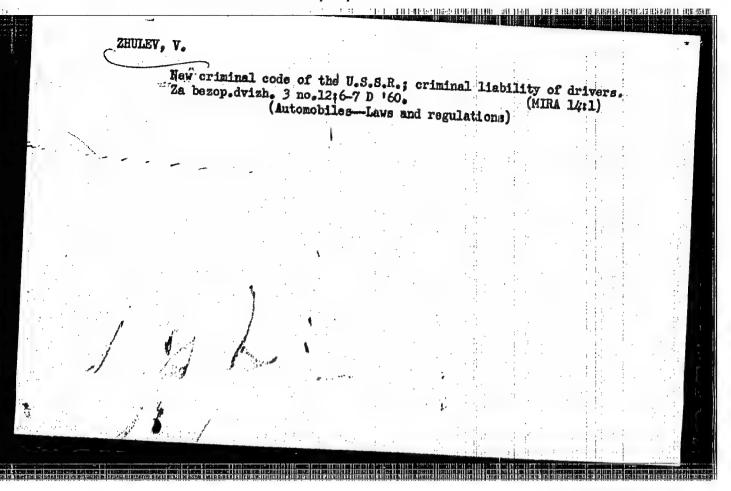
(MIRA 11:12)



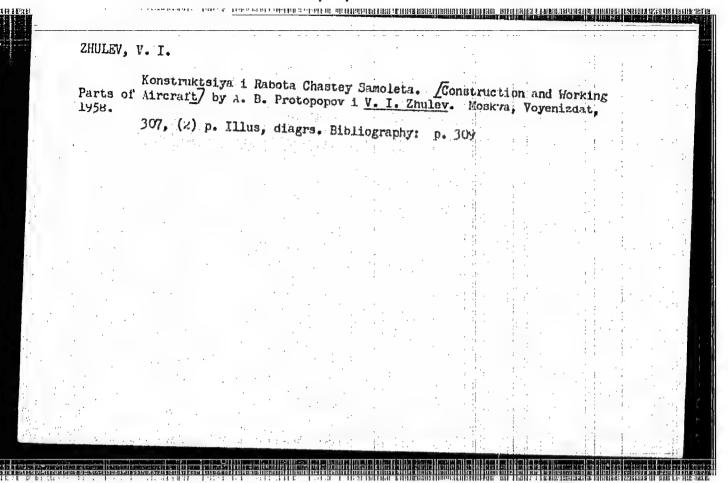


ABS. JOUR.: RZKhim., No. 23 1959, No. 83687 AUTHOR INST.: TITLE: ORIG. PUB.: ABSTRACT: level is 4.5 - 5.0 at which the yield of I is mical refining (CR = 417). The yield of I increases when I is removed from the reaction mixture at a high rate. CARD: 3/3	COUNTRY CATEGORY	:		•	. n	Я		
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Re-equipping poultry houses in Tuva. Sel'.stroi. 14 no.12: 5-6 D '59. (MIRA 13:4) 1. Kachal'nik upravleniya kapital'nogo stroitel'stva Tuvinskogo oblastnogo upravleniya sel'skogo khosyaystva. (Tuva--Poultry houses and equipment)



PHASE I BOOK EXPLOITATION

952

Protopopov, Aleksandr Borisovich and Zhulev, Vasiliy Ivanovich

Konstruktsiya i rabota chastey samoleta (Design and Loading of Airplane Components) Moscow, Voyen. izd-vo M-va obor, SSSR, 1958. 307 p. No. of copies printed not given.

Ed.: Zakharov, D.M., Engineer Lieutenant Colonel; Tech. Ed.: Anikina, R.F.

PURPOSE: This book is intended for the engineering and technical personnel of the Air Forces. It may also be useful to students of aeronautical engineering schools and to flying personnel of the Soviet Air Forces, and also to flying and technical personnel of DOSAAF and the Civil Air Fleet, to workers in the aeronautical industry and to others interested in aeronautical engineering.

Card 1/4

Design and Loading (Cont.)

952

COVERAGE: The authors discuss in popular form the loads acting on an airplane in flight and the performance of its basic structural components, such as the wing, fuselage, empennage and landing gear. To make the contents of the book understandable to the largest possible number of readers, the basic concepts of structural mechanics are also briefly presented. The book is illustrated by a large number of figures which help the reader to achieve a better understanding of complex problems relating to loads on the airplane components and to performance under load. In addition, the illustrations enable the authors to describe the physical nature of the phenomena discussed without resorting to complicated mathematics. The authors state that the book also attempts to present the principles on which the design of the separate airplane components is based, and to give a qualitative picture of the performance of those components under load. The authors state further that, in order to avoid cluttering up the book with formulas and computations, the calculation of the airplane for strength has not been considered. There are 201 figures, including sketches of the structure of components of the MIG-17. No personalities are mentioned. There are 10 Soviet references.

Card 2/4

Design	and Loading (Cont.) 952	
TABLE (OF CONTENTS:	
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Ch. 1.	Basic Concepts of Structural Mechanics	5
Ch. 2.	The Airplane Wing	33
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Design and Loading (Cont.)			
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AVAILABLE: Library of Congress		201	
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APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R002065010017-9"

"Self-Excited Vibrations of Oriented Wheels." Sub 31 Oct 51, Military Aeronautical Engineering Academy imeni Prof N. Ye. Zhukovskiy

Dissertations presented for science and engineering degrees in Moscow during 1951.

SOL Sum. No. 480, 9 May 55

SOV/19-58-6-680/685

AUTHORS:

Kuznetsov, L.V., Zhulev, V.N., Burshteyn, D.Ye., and Chelishchev, B.A.

TITLE:

A Device for Assembling Wheels, for Instance Bicycle

Wheels (Ustroystvo dlya sborki koles, naprimer,

velosipednykh)

PERIODICAL:

Byulleten' izobreteniy, 1958, Nr 6, p 151 (USSR)

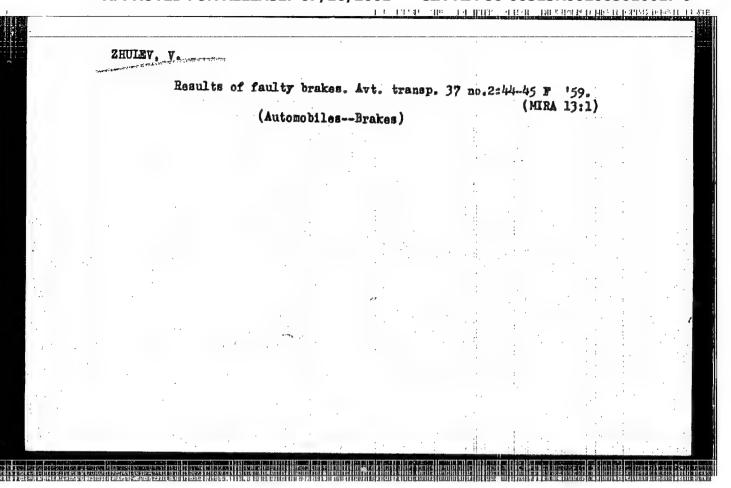
ABSTRACT:

Class 87a, 13. Nr 113321 (587536 of 10 Dec 1957). Submitted to the Committee for Inventions and Discoveries at the Ministers Council of USSR. A device with mechanisms for screwing in nipples and fixing the rim and the hub, eliminating deformation of the wheel during assembly; consisting of a mandrel for the hub mounted concentrically with a multi-cam chuck for fixing the rim, and mechanisms

for simultaneous screwing in all the nipples.

Card 1/1

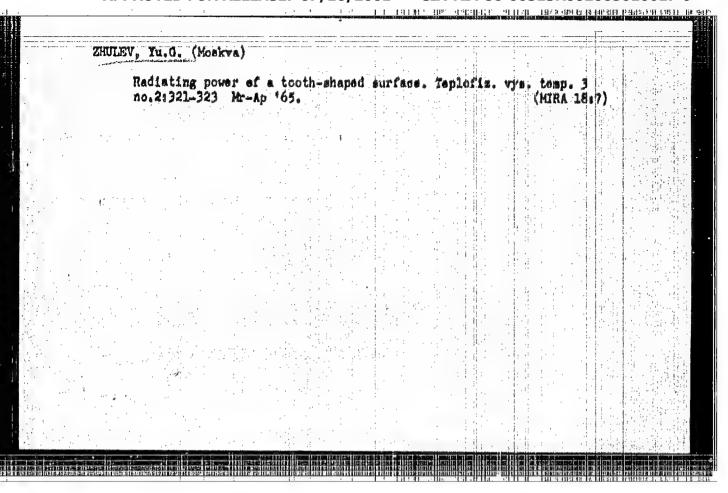
Worn tires caused an accident. A J1 '60. (Moscow ProvinceTraffi		B no.7:43 (MIRA 13:7)	
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TITLE: Optimal irradiation of the	form of triangular ra- fins and the cooled su	diating fins takin urface	g into accoun	the mutual		
SOURCE: AN SS	R. Izvestiya. Energ	getika i transport	, no. 3, 1964	391-400		
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1/3		$\dot{x} = -\frac{1}{2} \lambda \left(L - s \right) \frac{\alpha}{2} \frac{dT}{ds},$ $\dot{x} = -q(s) ds,$		(1) (2)		
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ZHULEV, Yu.K., inzh.; MOMEZOR: Tu.N., inzh., red.

[Instruction for the certification of experimental hydraulic lifting jacks] Instruktsiia po attestatsii ispetatel nykh gruzovykh gidravlicheskikh domkratov. Moakva, Stroiizdat, 1964. 56 p. (MIRA 17:12)

1. Mescow. TSentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsii. 2. TSentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy, Moskva (for Zhulev).

ACC NR: AP6036883

(A)

SOURCE CODE: UR/0122/66/000/011/0015/0016

AUTHOR: Zhulev, Yu. K. (Engineer); Tyablikov, Yu. Ye. (Candidate of technical sciences)

ORG: none

TITLE: Service life of packings in hydraulic cylinders

SOURCE: Vestnik mashinostroyeniya, no. 11, 1966, 15-16

TOPIC TAGS: packing material, hydraulic equipment, rubber, polymer

ABSTRACT: One of the most important elements which determines the reliability and service life of hydraulic machines is the packing of the hydraulic cylinder, whose construction and material depend on the purpose of the machine, the speed of the movement, the load, and the pressure. The article reports the results of an investigation of the friction loss, the sealing capacity, and the service life of leather, rubber and polymer packings, and of split cast iron rings, in hydraulic cylinders with a diameter from 82 to 207 mm at pressures up to 400 kg/cm² and velocities up to 15 meters/min. The friction loss was calculated by the formula:

$$f_{A} = \frac{P_{0} - P_{A}}{P_{A} + P_{A}} \cdot 100 /_{e_{1}}$$

where Pn and Po are the true values of the load on the piston, determined by a

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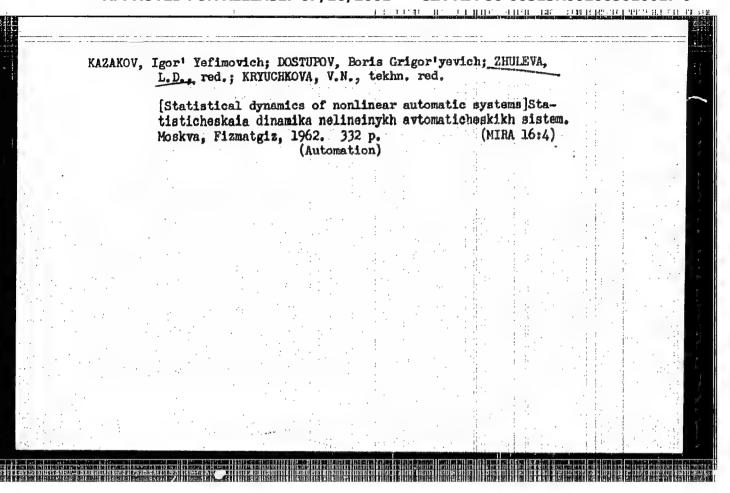
UDC: 62-762.63:620.162.4

ACC NR: AP6036883

dynameter, at a given pressure, for the forward stroke and the backward stroke. The service life of the packings was determined in cyclical tests of the cylinders under pressure in hydropulse equipment. The basic criterion of the service life of a packing was the amount of wear at which the leakage attained 2 liters/sec. The results show that the friction losses in cylindrical couples with packing consisting of split cast iron rings are of the same order of magnitude as the losses using rubber packing; at p = 200 kg/cm², they amount to 2½. Cylindrical couples with a working surface up to 125 cm², packed with split cast iron rings, can be used under a cyclic pressure of 150 kg/cm², at forward velocities up to 15 meters/min, while rubber packings can be used at the same pressure and at velocities up to 10 meters/min. However, it was found that the service life of the cast iron rings is five or six times greater than that of the rubber packings. Orig. art. has: 5 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003

Card 2/2



KAZAKOV, Igor' Yefimovich; DOSTUFOV, Boris Grigor'yevich; ZHULEVA, L.D., red.; KRYUCHKOVA, V.N., tekhn. red.

[Statistical dynamics of nonlinear automatic control systems]
Statisticheskaia dinamika nelineinykh avtomaticheskikh sistem.
Moskva, Fizmatgiz, 1962. 332 p. (MIRA 16:6)
(Automatic control) (Electronic computers)

FOR THE REPORT OF THE RESIDENCE OF THE PERSON

KRASOVSKIY, Aleksandr Arkad yevich; ZHULEVA, L.D., red.; SHKLYAR, S.Ya., tekhn. red.

[Dynamics of continuous self-adoptive control systems] Dinamika nepreryvnykh samonastraivaiushchikhsia sistem. Moskva, Fizmatgiz, 1963. 468 p. (MIRA 17:1)

807/118-59-3-7/22 28(1),32(3) AUTHOR: Zhul'govskiy, V.P., Engineer

TITLE: Automation, Telemechanics and Communications in Railroad

Transportation (Avtomatika, telemekhanika i svyaz) na zheleznodorozhnom transporte)

Mekhanizatsiya i avtomatizatsiya proizvodstva, 1959. PERIODICAL:

Nr 3, pp 22-24 (USSR)

ABSTRACT: The author describes a number of new plants, which im-

prove the railroad transportation, and its security, diminish labor requirements and enable better working conditions. In 1933 automatic blocking was installed and used on the principal lines. The railroad network of the USSR possesses various systems of automatic

blocking, the code system of which, being the most progressive, is to be preferred. Electric centralization of points and signals has a vast application. This system enables a railroad station possessing 60 switches

to economize about 350,000 rubles per annum, and to

release 25-30 switchmen for other duties. Further deve-Card 1/2

SCV/118-59-3-7/22

Automation, Telemechanics and Communications in Railroad Transportation

lopment of electrical concentration will lead to economy of cables, and consequently will save copper. A special place in telemechanic equipment is occupied by dispatch centralization, which includes automatic blocking in the railroad sections, and electric centralization in the stations. The train dispatcher directs the train from the operating desk on a railroad section of up to 160 km. The automatic signals and blockings transmit the signal directly to the cabin of the engine driver, and thereby enable him to drive the train with greater security and higher speed even under unfavorable conditions. An important part in the work of stations, where the sorting of trains is carried out, is played by the centralized operating of switches, signals and brakes. A radio communication between the engine driver, the dispatcher and the railroad official on duty has been installed. There is 1 photograph.

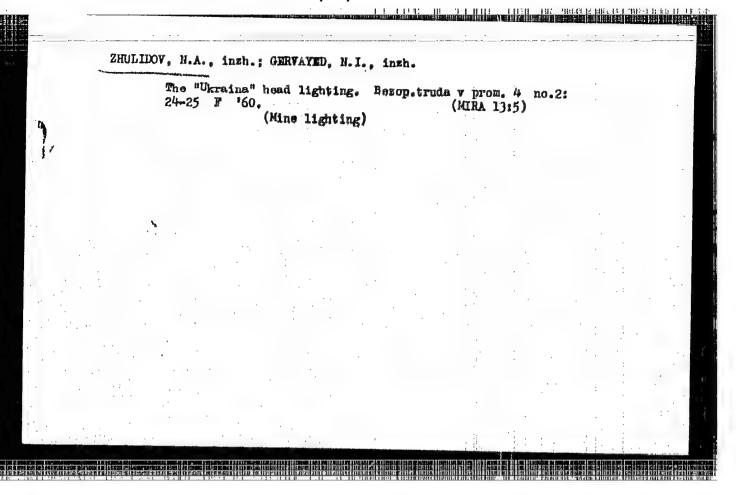
Card 2/2

NECOVELOV, S.F.; ZHULID, L.P.

Determining the scil moisture available to plants under field conditions (methods and apparatus). Pochvovedenie no.9:81.26 S *65.

(MIRA 18:10)

1. Severo-Kavkazskiy zonal'nyy nauchno-issledovatel'skiy institut sadovodstva i vinogradarstva.



8/110/63/000/002/002/002 A055/N126

OF THE STREET PROPERTY AND DESCRIPTION OF THE PROPERTY OF THE

AUTHORS:

Zhulidov, N.A., Yefremov, F.I., - Engineers

TITLE:

A new nickel-zinc battery

PERIODICAL: Vestnik elektropromyshlennosti, no. 2, 1963, 74 - 75

TEXT: This is a detailed description of the new nickel—zinc battery, whose design is based on the property of zinc to enter into reaction with certain hydroxides with which it forms practically insoluble (trudnorastvorimyve) compounts. The negative electrode is made of a mixture of zinc and hydroxide commonents. Thanks to a considerable reduction of the solubility of zinc and to a continuous extraction of zinc ions from the electrolyte by the hydroxide contained in the negative electrode, the new battery presents a greater reliability in operation; it resists overcharges and short-circuits. The new battery uses pressed electrodes without lamellas. It operates normally in half-dry condition. The charging can be effected at a current density of from 0.5 to 1.5 a/dm² (positive electrode). At the end of the charging, the current drops to 1/20 of its initial value, and the battery can remain in this condition for ten days. The dis-

Card 1/2

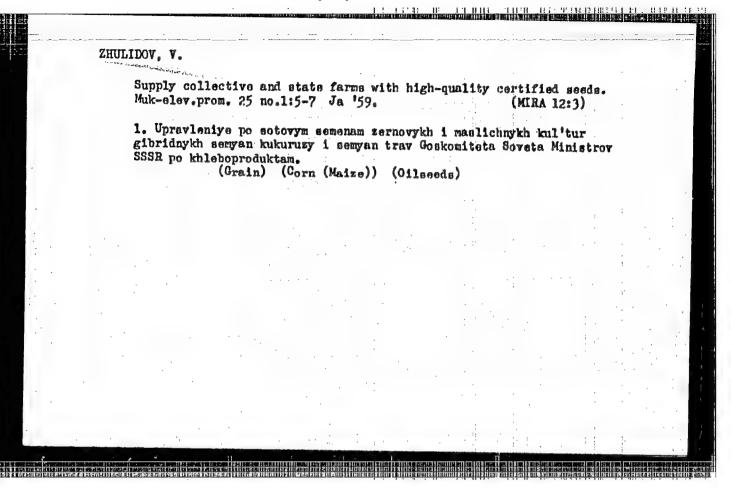
A new nickel-zinc battery

S/110/63/000/002/002/002 A055/N126

charging can be effected at a current density of up to 10 a/dn² (positive electrode). The operating voltage is about 40% higher than that of nickel-iron and nickel-cadmium batteries. The new batteries can work at very low temperatures. Their cost (in series production) must be about 2 - 3 times kneer than that of nickel-cadmium batteries. Their service life is longer than that of nickel-cadmium batteries of analogous construction. A table shows some comparative characteristics of nickel-zinc, nickel-iron, nickel-cadmium and silver-zinc batteries. The charging and discharging characteristics of the nickel-zinc battery at various current values are also reproduced. Practical experience (in the Donbass coal-pits) proved the expediency of using the new battery for coal-pit lamps.

Card 2/2

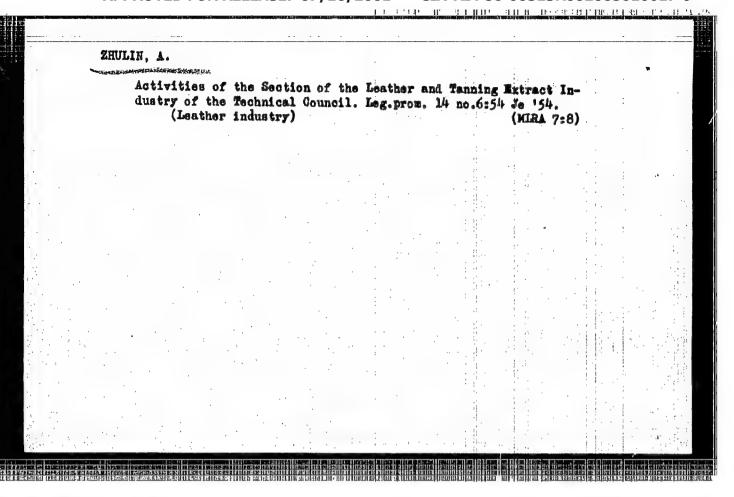
GERVAYED	, N.I.; ZHULIDOV, N.A.
	New portable lamps in mines of the Stalino Economic Region. Admbyt. kcmb. ugol'. shakht. no.4157-59 '61. (MIRA 1518)
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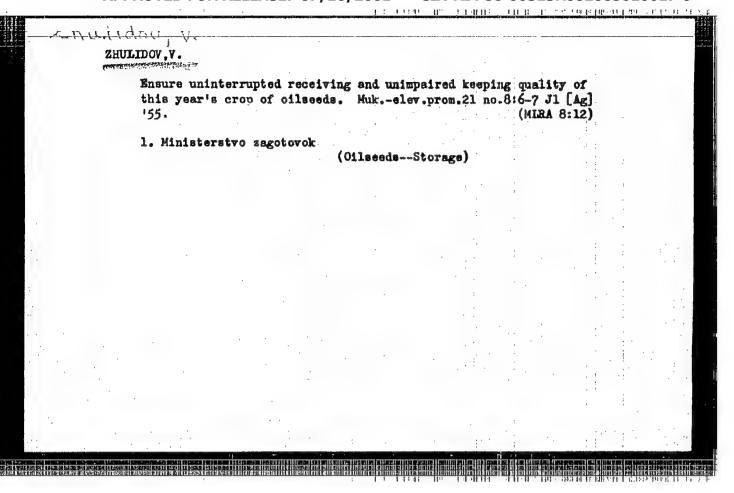


ZHULIDOV. Teniamin Alekseysvich; DENISERKOVA, L.M., red.; GOLUBKOVA, L.A., tekhn. red.

[Conditions and procedure governing payments for the delivery of oil seeds] Usloviia i portadok raschetov so statchikani meslichnyth semian. Moskva, Izd-vo tekhn. i ekon. lit-ry po voprosam mukomol'inoi krupianoi i kombikormovoi promyshl. i elevatorno-ukāadskogo khos., 1957. 49 p. (Oilseed plants)

(Oilseed plants)





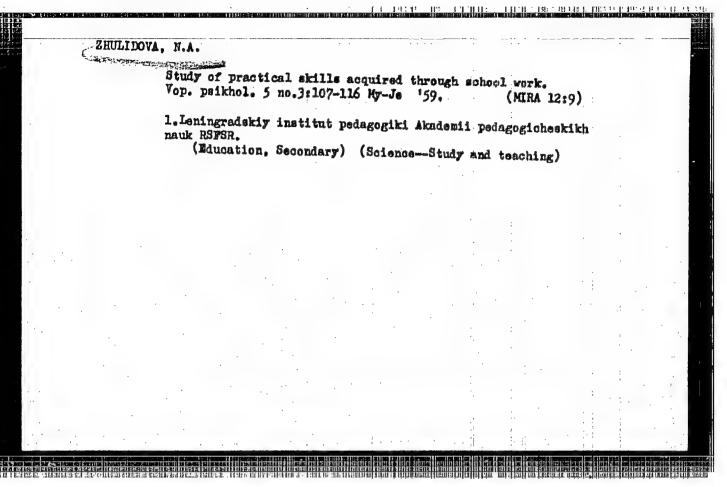
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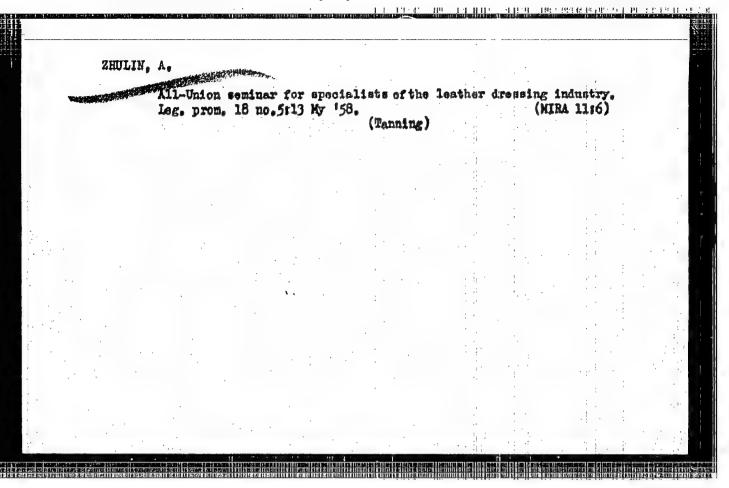
Vypolnit' plan zagotovok maslichnykh kul'tur. Zagotovki s.-kh. produktov, 1949, No. 1, s. 19-22.

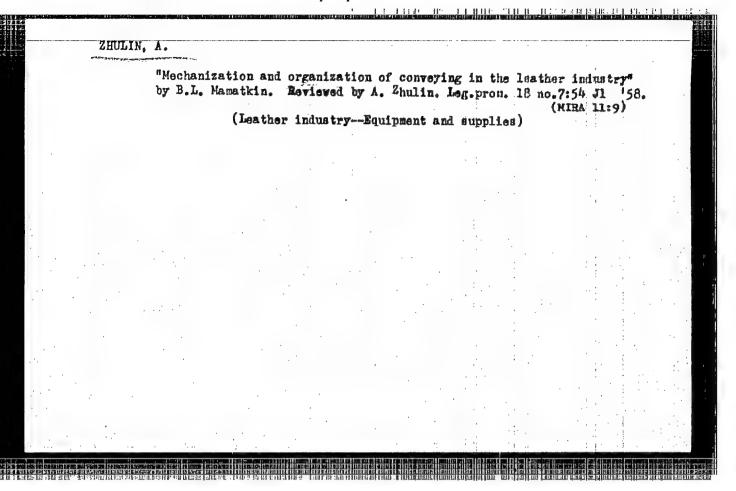
ZHULIDOV, V. A.

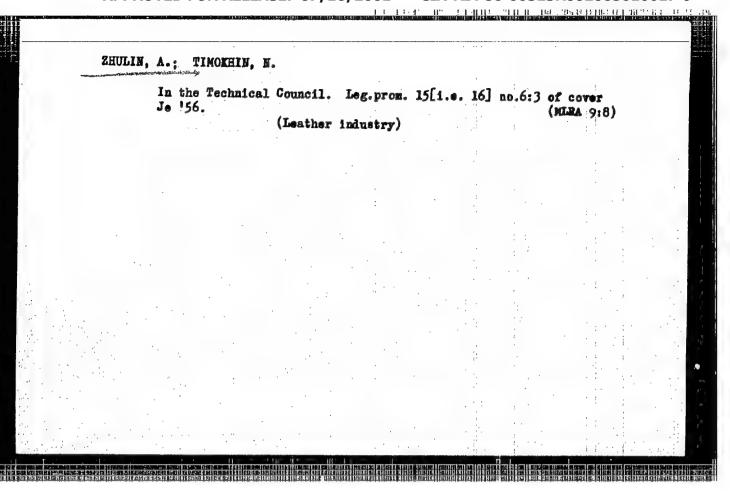
(State purchases of oil seeds) 2. perer. izd. Moskva, Zagotizdat, 1947.

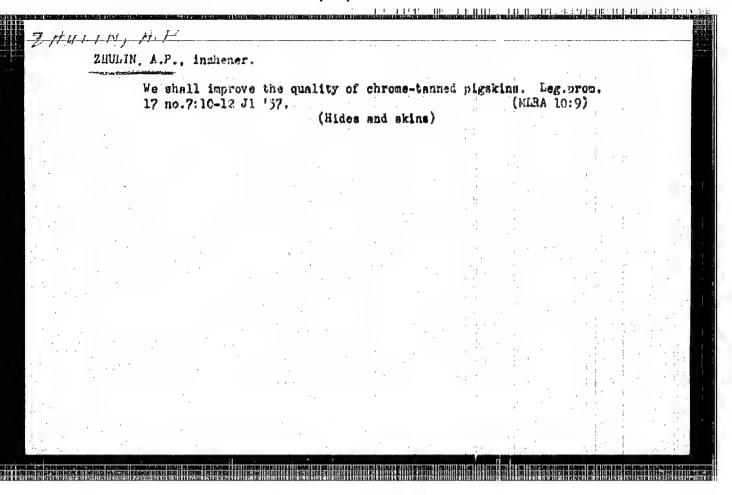
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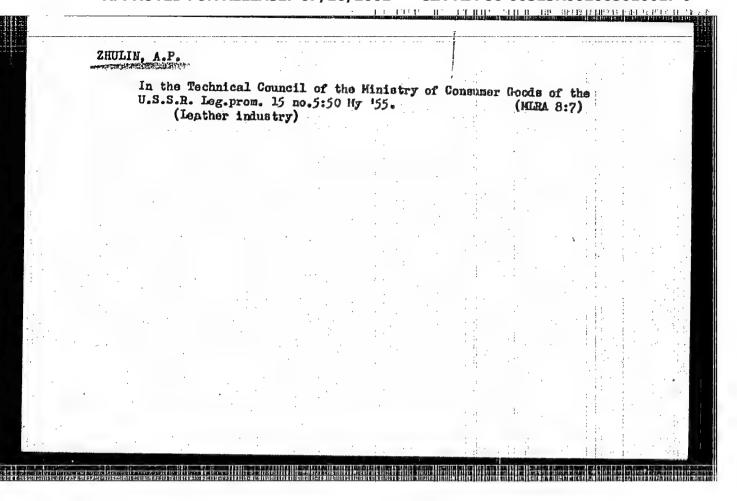


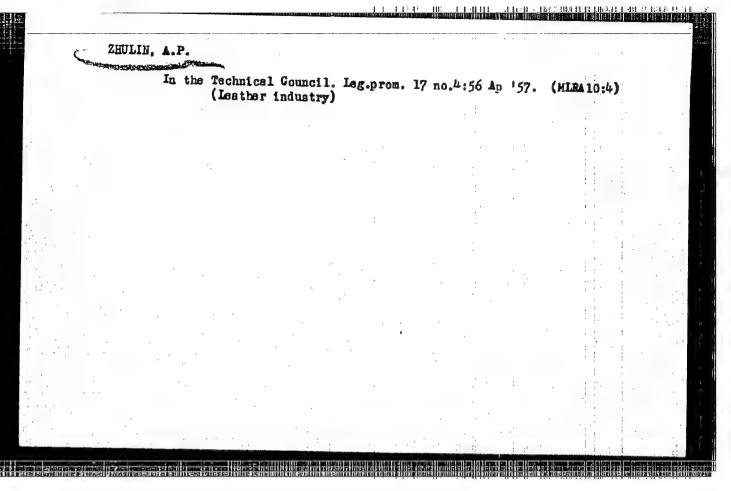


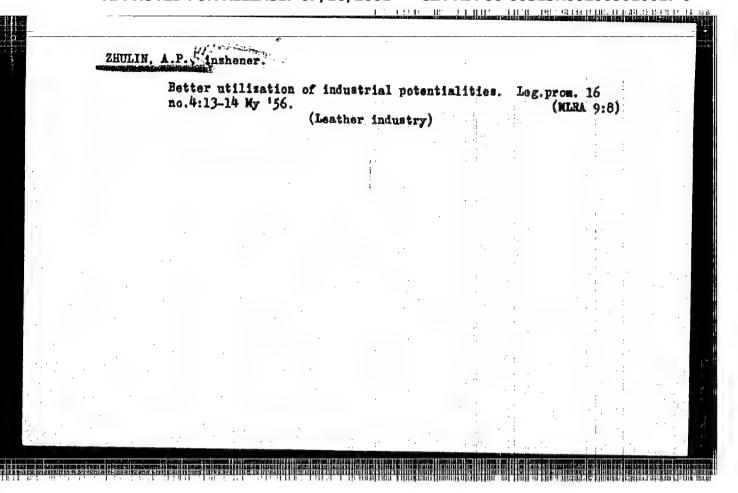


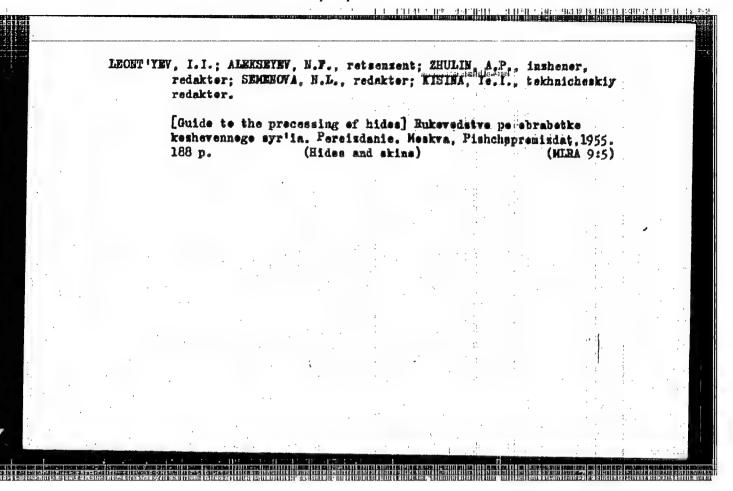


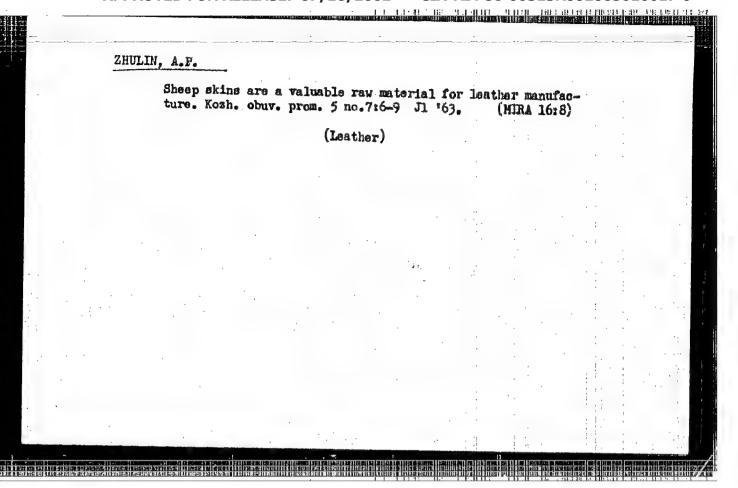












ZHULIN, A.P.; LEVENKO, P.I., IEV, M.V.; ZIATKIN, M.V.; ABRAMYAN, L.C.;
AVKSENT'YEV, I.M.

Reviews and bibliography. Kozh.-obuv. prom. 7 no.8:30-36 Ag '65.
(MIRA 18:9)

69424

S/141/60/003/01/018/020 E192/E582

3,1210

AUTHOR: Zhulin, I. A.

TITLE:

Electro-Optical Light Modulators of the Solar

Magnetograph of the IZMIRAN (Institute of Earth Magnetism, Ionosphere and Radio Wave Propagation of the Academy of

Sciences USSR)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1960, Vol 3, Nr 1, pp 151-152 (USSR)

ABSTRACT: The measurements of weak magnetic fields in the sun is effected by employing a photo-electric modulation method (Refs 1,2,3) in which the elliptically polarized spectral line is amplitude-modulated. Originally a mechanical modulator was employed for the purpose (Ref 1). However, the device was unsatisfactory in that its sensitivity was insufficient. Subsequently a Kerr cell was employed as the modulator (Ref 4). This was disadvantageous in that it was necessary to use chemically pure nitrobenzel. Consequently an electro-modulator based on a crystal

Card 1/3 of ammonium phosphate was developed (Ref 5). The crystals

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S/141/60/003/01/018/020 E192/E582

Electro-Optical Light Modulators of the Solar Magnetograph of the IZMIRAN

of this substance can be grown artificially to almost any required size and have excellent transmission characteristics in the visible region and possess comparatively high electro-optical constants. It was found that the z-cut of the crystal is the most convenient as the light-modulator provided the electrical field is applied along the axis z; the light should also be directed along the axis z. The theoretical analysis of the electro-optical effect in the crystal was given by B. H. Billings (Ref 5). This showed that when an electric field is applied along the axis, the crystal becomes two-axial and produces an angle \(\Omega \) between the optical axes. The angle Ω can be varied by the voltage. One of the very important problems when employing the crystal is the suitable construction of the electrodes. These must be transparent. It was possible to devise Card 2/3 such electrodes by depositing thin layers of lead oxide

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Electro-Optical Light Modulators of the Solar Magnetograph of the IZMIRAN

onto glass (Ref 6). The layers can be so thin that their reflection losses are smaller than those in glass. It was found that the optimum thickness of the layers is about 700 Å. The above modulator can also be used in the interference-polarization filters or as a very fast shutter in photography (for exposures up to 10 seconds).

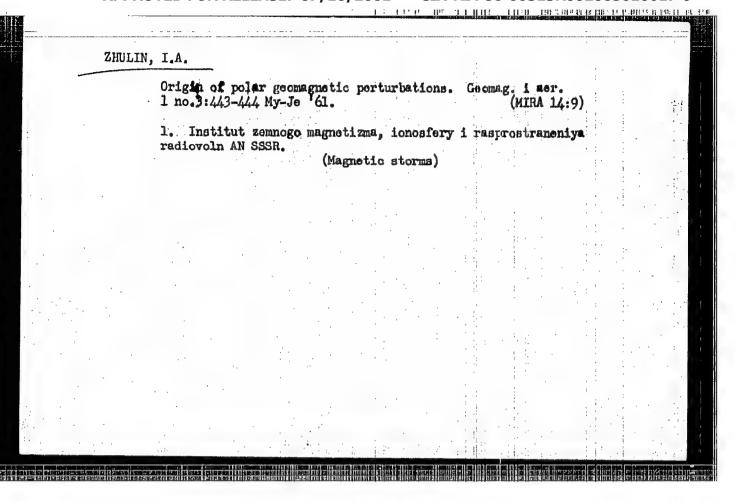
There are 6 references, 5 of which are Soviet and 1 English.

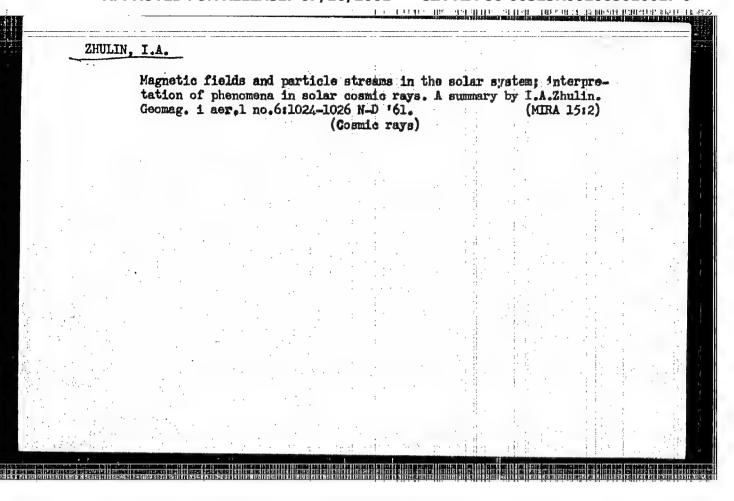
ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Earth Magnetism, Ionosphere and Radio-Wave Propagation of the Academy of Sciences, USSR)

SUBMITTED: March 18, 1959

Card 3/3

ZHULIN,	I.A.		.:			
	Magnetohydrodynamic theory of go no.2:133-149 Mr-Ap '61.	eomagnetic	storms.		i aer. 1 (MIRA 14:	
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AUTHOR:

Mishin, V.M. and Zhulin, I.A.

TITLE:

Some problems of the geomagnetic activity. I.

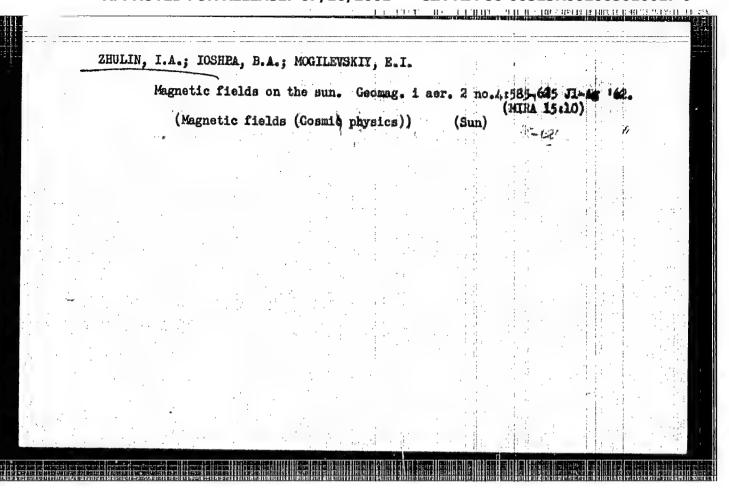
Geomagnetizm i Aeronomiya, v.2, no.3, 1962, 502-509 RERIODICAL:

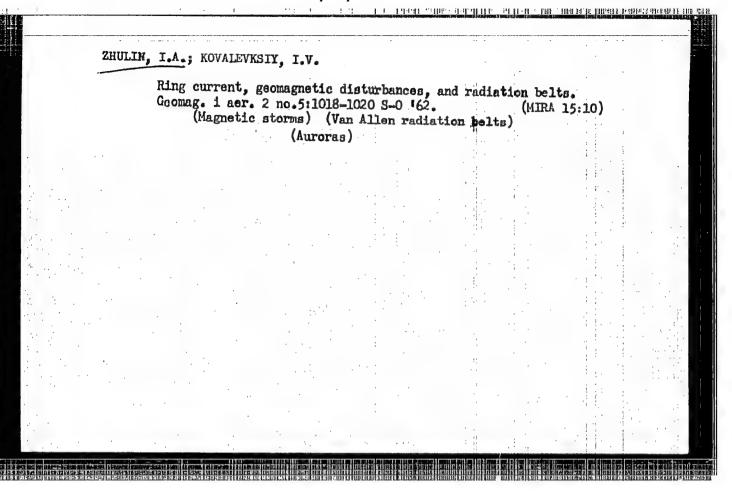
TEXT: The laws governing the space-time distribution of the geomagnetic activity are investigated. Several existing interpretations of the irregular geomagnetic disturbances D1 are discussed. theory of Nikol'skiy (application of Stormer's theory for the explanation of the geomagnetic activity) is proved to be unsound. A system of currents corresponds to the field of D₃ (the diurnal variation of the geomagnetic disturbances.). It is suggested that the distribution of the current density in this system can be explained by the dynamo-theory. The dependence of a part of the geomagnetic activity on $\sqrt{\cos z}$, where z is the zenith angle of the Sun, is discussed. There are 5 figures, 18 references.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i resprestranchiya

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ACC NR: AP6002755

SOURCE CODE: UR/0203/65/005/006/1095/1098

AUTHOR: Zhulin, I. A.; Mogilevskiy, E. I.

362

ORG: Institute of Terrestrial Magnetism. Ionosphere and Radio Wave Propagation AN SSSR (Institut zemmogo magnetiza, ionosfery i rasprostrameniya radiovoln)

TITLE: The part played by the magnetic field of solar corpuscular streams and their effect on the earth's magnetosphere

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 6, 1965, 1095-1098

TOPIC TAGS: magnetosphere, solar corpuscular radiation, geomagnetism.

ABSTRACT: The authors identify irregularities in the corpuscular solar stream with plasma clouds which have an inherent magnetic field (M-elements) and explain certain effects which these M-elements have on the earth's magnetosphere. A formula is given for the flux density of the magnetic field through a sphere located at a given distance p from the center of an M-element:

 $B_r = 2H\cos\theta/\rho^4,$

where M is the effective magnetic moment of the M-element; 0 is the polar angle.

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UDC: 629.192.3

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ACC NR: AP6002755

The variation in 2 cos θ/ρ^3 was calculated for a chain of dipoles corresponding to a sequence of M-elements emitted with a radial velocity of \$580 km/sec (At=3 days) for a difference in the heliographic latitude in the emission region at the sun and the earth Δφ=5° (the tangential velocity of the emission is disregarded). The results are shown graphically. The concepts developed in the paper may be used as a basis; for a qualitative explanation of geomagnetic storms. The process of energy transmission from the corpuscular stream is associated with complex effects which prise in the region of interaction between the earth's magnetosphere and the field and plasma of the supersonic corpuscular stream. In this case, energy transfer may take place not only through the magnetic field of the M-elements but also by direct action of the plasma on the corpuscular stream. The qualitative considerations in this paper show that the magnetic moment of the M-element is important as an effective parameter. The actual physical meaning of this parameter requires further study both of processes in interplanetary space and of the nature of the interaction between the corpuscular stream and the earth's magnetosphere where the magnetic field of the stream may play an important part.

SUB CODE: 08/ SUBM DATE: 27Mar65/ ORIG REF: 010/ OTH REF: 001

Card 2/2

ACC NR. AR6028758

SOURCE CODE: UR/0269/66/000/006/0055/0055

AUTHOR: Mogilevskiy, E. I.; Zhulin, I. A.; Ioshpa, B. A.

TITLE: The IZMIRAN solar tower installation

SOURCE: Ref. zh. Astronomiya, Abs. 6.51.434

REF SOURCE: Sb. Solnechn. aktivnost'. No. 2. M., Nauka, 1965, 108-117

TOPIC TAGS: solar telescope, solar spectrum, spectrographic analysis

TRANSLATION: The ATB-3 IZMIRAN solar tower is described. The mirrors of the coelostat group (D = 440 mm) are mounted on the upper end of a special tube which houses the entire optical assembly. The clock mechanism is controlled by a 3G-11 sound generator through a power amplifier. The main mirror of the telescope has the following parameters: D = 375 mm, F = 17 m; the Cassegrainian reflection is F = 27 m. The telescope is equipped with a complex horizontal spectral assembly which operates as a spectrograph, a spectrometer, a spectroheliograph, and a spectrohelioscope. The spectrograph uses mirrors with F = 10 m; the GOI diffraction grating has 600 lines/mm. The halfwidth of the instrumental profile in the IVth-order is 0.026 A (this is larger than the theoretical value by a factor of 1.4). The installation is equipped with a monochromatic guide. For visual and photographic observations in the Hu line (an IPF by

UDC: 522.56

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ACC NR: AR6028759

SOURCE CODE: UR/0269/66/000/006/0055/0055

AUTHOR: Zhulin, I. A.; Mogilevskiy, E. I.

TITLE: Two-channel solar magnetograph

SOURCE: Ref. zh. Astronomiya, Abs. 6.51.435

REF SOURCE: Sb. Solnechn. aktivnost'. No. 2. M., Nauka, 1965, 149-156

TOPIC TAGS: solar magnetic field, solar astronomy, magnetogasdynamics, solar chromosphere, solar photosphere

TRANSLATION: The IZMIRAN two-channel solar magnetograph is described. The device is fed by one spectrograph and is used for the simultaneous observation of the magnetic fields in the photosphere and the chromosphere (e.g., in Fe lines & 5250 and Hg). The use of ADP (NH4H2PO4) as an electrooptical modulator is described. The assembly and the alignment of the electrooptical modulator is described. A diagram of the power supply in the ADP and the phase detectors connected to the modulator is given. 16 references. G. K.

SUB CODE: 03

UDC: 522.56

Card 1/1

ACC NR: AP7004572 SOURCE CODE: UR/0203/66/006/002/0375/0376	
AUTHOR: Zhulin, I. A	
ORG: Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation.	8
AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN	
SSSR) TITLE: Intermediate role of magnetic fields of salar commission absence to	
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determining the degree of their geoeffectiveness SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 2, 1966, 375-376	
TOPIC TAGS: magnetic field, magnetohydrodynamics, geomagnetic disturbance	
ABSTRACT: In an earlier study (Goomngnotizm 1 Apronomiya, 6, 1966, No. 2,	
197) the author discussed the influence of magnetic fields of solar corpuscular	
: Streams on the character of the interaction of the streams with the earthte	
magnetosphere. Particular attention was devoted to the problem of the	
impossibility of penetration of the magnetic field within the magnetosphere and	
the associated need for a magnetohydrodynamic treatment of the theory of geomag- netic disturbances. As one of the possible mechanisms determining the degree	
of geoeffectiveness of the corpuscular streams he discusses the intermediate role	
of the magnetic field of the stream in interaction of the oncoming plasma with	
the earth's magnetosphere. The communication cited below gives some additional	
considerations supporting the conclusions drawn in that paper. The author thanks	
E. I. Mogilevskiy for discussions of the results of this work. Orig. art. has: 1 figure. /JPRS: 38,937/	
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SUB CODE: 08,20 / SUBM DATE: 31Ju165 / ORIG REF: 001 / OTH REF: 007	
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ACC NRI AR6035295

SOURCE CODE: UR/0269/66/000/009/0052/0052

AUTHOR: Zhulin, I. A.

TITLE: First results of simultaneous measurements of magnetic fields at two levels in the solar atmosphere

SOURCE: Ref. zh. Astronomiya, Abs. 9.51.440

REF SOURCE: Solnechnyye dannyye, no. 11, 1965(1966), 48-53

TOPIC TAGS: solar atmosphere, magnetic field, photosphere, chromosphere, solar telescope, who magnetic field

ABSTRACT: The first results are presented of simultaneous measurements of the magnetic fields at two levels in the solar atmosphere (in the photosphere and chromosphere), obtained at IZMIRAN [Institute of Terrestrial Magnetism and Radio-Wave Propagation of the Academy of Sciences USSR]. A two-channel solar magnetograph was used. The light enters each channel from a single spectrograph of the solar telescope. In one of the channels, the \$\frac{1}{2}\$ 5250. 2 photosphere line is used, while in the other channel the H \$\beta\$ is used. Charts of the longitudinal com-

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UDC: 523, 745

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AP7013720

SOURCE CODE: UR/0203/65/005/006/1092/1094

AUTHOR: Zhulin, I. A.; Mogilevskiy, E. I.

ORG: Institute of Terrestrial Magnetism, the Ionosphere and Radio Wave Propagation, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: Variability of the fluxes of magnetic fields of spots and faculae

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 6, 1965, 1092-1094

TOPIC TACS: solar magnetic field, solar facula, magnetic field measurement, sunspot, magnetic field flux

SUB CODE: 03,20

ABSTRACT: In this paper an attempt is made to determine qualitatively the nondependence of the variability of magnetic fields of spots and adjacent faculae on the basis of some data on local magnetic fields on the sun obtained at Mount Wilson Observatory during the IGY period. The basic data consisted of magnetograms of the longitudinal component of magnetic fields on the sun obtained once a day. The measurements

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UDC: 523.745 0933

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ACC NR: AP7013720

were based on the photospheric line of iron \$ 5250.2. Magnetograms for 8-10 successive days for January, May, August and October 1958 were used. In order to determine the magnetic flux of local regions of the magnetic field and judging the character of the structure and variability of fields it was necessary to interpret the magnetograms, which is extremely complex, and construct maps of isogausses -- lines of equal values of magnetic field strength. Fig. 1 in the text is an example of such isogauss maps. The complexity of the pattern of distribution of the local magnetic fields in the northern and southern zones of activity makes it difficult to make such an analysis, but on the other hand the problem was facilitated by the availability of very complete data on calcium flocculae. The boundaries of the flocculae virtually coincide with regions where the magnetic field exceeds 5 gauss. It was found that the pattern of changes of the flux in a spot and in an active region is different. This can serve as evidence of the absence of a direct relationship between changes of the magnetic flux of spots and variations of the magnetic flux of the surrounding active region. Orig. art. has: 2 figures and 1 formula.

Card 2/2

ACC NR: AP7007695

SOURCE CODE: UR/0030/67/000/061/0165/0107

AUTHOR: Zhulin, I. A. (Candidate of physico-mathematical Sciences)

ORG: none

TITLE: Conference on Solar and Terrestrial Physics hold in Belgrade,

SOURCE: AN SSSR. Vestnik, no. 1, 1967, 105-107

TOPIC TAGS: scientific conference, solar corpuscular radiation, space magnetic field, charged particle, magnetosphere, ionosphere, comet, cosmic ray intensity, unmanned space flight / Zcnd-3 space flight,

ABSTRACT: A Conference on Solar and Terrestrial Physics held in Belgrade, Yugoslavia, 26 August to 2 September 1966, was attended by more than 400 scientists from different countries. About 200 lectures were presented on solar corpuscular streams, interplanetary magnetic fields, the interaction of solar plasma with the geomagnetic field, charged particles in the magnetosphere and the temperature of neutral and charged particles in the cionosphere and magnetosphere. Over 40 lectures were presented by Soviet

ACC NR. AP7007695

scientists; they dealt with both theoretical investigations and experiments conducted by artificial satellites and rockets. Three review lectures were presented by V. I. Krasovskiy, K. I. Grangauz, and V. A. Troitskaya. A great deal of interest was aroused by B. P. Konstantinov who described his hypot esis on the possibility of the antimatter nature of comets.

S. N. Vernov presented data on variation of cosmic rays, including 1--5 the latest data on radioastronomical irregularities and their motion in

SUB CODE: 03, 04, 22 / SUBM DATE: none

Cord 2/2

AFANAS'YEVA, V.I.; ZHULIN, I.A.; KALININ, Yu.D.; MOGILEVSKIY, E.I.

Energy of geomagnetic disturbances. Geomag. i aer. A no.6:1127-1130
N-D'64. (MIRA 18:1)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln
AN SSSR.

